

Appl. No. 10/758,138
Docket No. 9162Q
Amdt. dated September 14, 2006
Reply to Office Action mailed on August 17, 2006
Customer No. 27752

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A disposable absorbent article comprising:
 - a topsheet;
 - a backsheet; and
 - an absorbent core disposed between the topsheet and the backsheet, said absorbent core comprising a durable, hydrophilic fluid pervious acquisition layer, said acquisition layer comprising:
 - (a) a acquisition layer substrate; and
 - (b) a hydrophilicity boosting composition coated on said substrate, said hydrophilicity boosting composition comprising a hydrophilicity boosting amount of nanoparticles, wherein said nanoparticles have a particle size of from about 1 to about 750 nanometers, and wherein said acquisition layer substrate has been treated with a high energy surface treatment.
2. (Previously presented) The disposable absorbent article according to Claim 1 wherein said acquisition layer substrate is selected from the group consisting of porous polymeric films, nonwoven materials and combinations thereof.
3. (Previously presented) The disposable absorbent article according to Claim 2 wherein said acquisition layer substrate is a nonwoven material and wherein said nonwoven material comprises fibers selected from the group consisting of polyolefins, polyesters, cellulose and combinations thereof.
4. (Previously presented) The disposable absorbent article according to Claim 3 wherein said nonwoven material comprises fibers selected from the group consisting of polypropylene, polyethylene, polyethylene terephthalate, rayon and combinations thereof.

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5. (Previously presented) The disposable absorbent article according to Claim 1 wherein said nanoparticles are inorganic nanoparticles.
6. (Previously presented) The disposable absorbent article according to Claim 5 wherein said nanoparticles are selected from the group consisting of titanium dioxide, layered clay minerals, alumina oxide, silicates, and combinations thereof.
7. (Previously presented) The disposable absorbent article according to Claim 6 wherein said nanoparticles are selected from the group consisting of titanium dioxide, Boehmite alumina, sodium magnesium lithium fluorosilicates and combinations thereof.
8. (Previously presented) The disposable absorbent article according to Claim 1 wherein said hydrophilicity boosting composition further comprises a surfactant.
9. (Previously presented) The disposable absorbent article according to Claim 8 wherein said surfactant is a nonionic surfactant.
10. (Previously presented) The disposable absorbent article according to Claim 1 wherein said absorbent core further comprises a storage layer disposed between the acquisition layer and the backsheet, and wherein said storage layer comprises material selected from the group consisting of absorbent gelling material, fluff, and mixtures thereof.
11. (Previously presented) The disposable absorbent article according to Claim 1 wherein said backsheet is substantially liquid impervious.
12. (Previously presented) The disposable absorbent article according to Claim 1 wherein said disposable absorbent article is selected from the group consisting of diapers, adult incontinence products, training pant, feminine hygiene pads, and panty liners.
13. (Cancelled)

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14. (Previously presented) The disposable absorbent article according to Claim 1 wherein said high-energy surface treatment is selected from the group consisting of corona discharge treatment, plasma treatment, UV radiation, ion beam treatment, electron beam treatment and combinations thereof.
15. (Withdrawn) A process for making a disposable absorbent article comprising an absorbent core, said absorbent core comprising a durable, hydrophilic fluid pervious acquisition layer and said process comprising the steps of:
 - selecting an acquisition layer substrate from the group consisting of porous polymeric films, nonwoven materials and combinations thereof;
 - treating said acquisition layer substrate with high energy surface treatment;
 - coating said acquisition layer substrate with a hydrophilicity boosting composition, said hydrophilicity boosting composition comprising a hydrophilicity boosting amount of nanoparticles, wherein said nanoparticles having a particle size of from about 1 to about 750 nanometers,
 - and wherein the step of treating said acquisition layer substrate with a high energy surface treatment occurs prior to or concurrently with the coating of the acquisition layer substrate.
16. (Withdrawn) The process for making a disposable absorbent article according to Claim 15 further comprising the step of selecting said high-energy surface treatment from the group consisting of corona discharge treatment, plasma treatment, UV radiation, ion beam treatment, electron beam treatment and combinations thereof.
17. (Withdrawn) The process for making a disposable absorbent article according to Claim 15 wherein hydrophilicity boosting composition further comprises a carrier and a surfactant.
18. (Withdrawn) The process for making a disposable absorbent article according to Claim 15 wherein said nanoparticles are inorganic nanoparticles.
19. (Cancelled)

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20. (Withdrawn) The process for making a disposable absorbent article according to Claim 15 further comprising the step of selecting said disposable absorbent article from the group consisting of diapers, adult incontinence products, training pant, feminine hygiene pads, and panty liners.